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AUTHOR Hull, Ray; And Others
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ABSTRACT

This paper provides a synthesis of research on aspects of student teaching as they relate to transfer of teaching skills to the classroom. The report highlights major dimensions of student teaching, such as specific training interventions (microteaching and simulation), the ecological context of student teaching (involving the cooperating teacher, student teacher, and university supervisor), personality and attitude factors, and sociological forces. Also considered are the internship as a training alternative and the methodological implications of the research studies. Findings which emerged from the research synthesis include: (1) Microteaching is successful for skill acquisition but has not demonstrated transfer; (2) Simulation appears to enhance transfer but is a neglected training intervention; (3) Unless approved training strategies are a familiar part of the classroom scene, the student teacher will probably not attempt to employ them; (4) Training skills may be deferred until the student teacher has mastered the ecology of the classroom; (5) Environmental factors mediate transfer by providing an institutional context; (6) Attitudes and values are adopted which often disagree with those inherent in training programs, thereby compromising both motivation and opportunity to accomplish transfer; and (7) Participants in internship programs and first-year teachers showed little or no significant differece in demonstrated transfer of training. A list of 227 references is included. (Authors/FG)

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RESEARCH ON STUDENT TEACHING:

A QUESTION OF TRANSFER

A report of a research seminar
conducted at the
University of Oregon,
Fall, 1981

Sponsored by the
Division of Teacher Education,
University of Oregon,
Eugene, Oregon.

Contributors: Ray Hull
Rob Baker
Jacqueline Kyle
Rick Goad
Andy Duncan
Roberta Hutton
Helen Miller
Judy Ohmer

Edited by: Ray Hull
Rob Baker
Jacqueline Kyle
Rick Goad

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ABSTRACT

This paper represents the cumulative effort of a research seminar on student teaching. It provides a synthesis of research literature and utilizes the transfer of training question as a central and unifying theme. The report highlights major dimensions of student teaching, such as specific training interventions (microteaching and simulation), the ecological context of student teaching involving the triad of cooperating teacher/supervisor/student teacher, student teacher personality and attitude factors, and sociological forces. Also considered are the internship as a training alternative, and the methodological implications of the surveyed research studies.

Some of the findings which have emerged from the literature are

(1) microteaching is successful for the acquisition of skills but, due to a number of factors, has not demonstrated transfer.
(2) simulation appears to enhance transfer but is a badly neglected training intervention.
(3) unless approved strategies are a familiar part of the classroom scene the student probably will make no effort to employ them.
(4) training skills may be deferred until the student has mastered the ecology of the classroom.
(5) environmental factors mediate transfer by providing an institutional context within which transfer is to occur.
(6) attitudes and values are adopted which often disagree with those inherent in training programs thereby compromising both motivation and opportunity to accomplish transfer.
(7) internship programs and first year teachers showed little or no significant difference as to demonstrated transfer of training; but contradictory findings emerged during recent research on the Resident Teacher Program at the University of Oregon where interns rated significantly higher in their utilization of skills.

EXECUTIVE SUMMARY

This paper presents a synthesis of recent research literature on student teaching. It is the product of a series of research seminars held at the University of Oregon. The transfer of training question which emerged as a central issue for the research reports has provided a unifying theme for this paper. The report highlights pre-student teaching experiences and specific training interventions (microteaching and simulation), the ecological context of student teaching involving the triad (cooperating teacher, supervisor, student teacher), classroom and school environment, socialization forces on the student teacher, and student teacher personality and attitude variables. Additional consideration is given to internship as a training alternative and the methodological implications of the research studies surveyed. The findings which emerge from a synthesis of the research literature are

(a) microteaching, while successful for the acquisition of skills, has not, due to a number of factors, demonstrated transfer.

(b) simulation enhances transfer but remains a badly neglected area of research in education.

(c) the cooperating teacher appears to negate college skills learned by the student teacher unless careful matching is a prerequisite to placement.

(d) the university supervisor seems to find it difficult to encourage transfer of university learned skills into actual student teaching

practice.

(e) unless requisite strategies are approved and in evidence at the school site, the student teacher probably will make no effort to introduce them.

(f) conflict, which is likely to arise from two party coalitions in a triad, appears to impede the transfer of university trained skills.

(g) the implementation of student teacher skills may be deferred indefinitely or until the student teacher has mastered the ecology of the classroom.

(h) factors of school environment undoubtedly mediate transfer by providing an institutional context within which transfer is to occur.

(i) student teachers appear to adopt attitudes and values which often disagree with those inherent in training programs thereby compromising both motivation and opportunity to accomplish transfer.

(j) participants in regular internship programs and first-year teachers demonstrated little or no significant differences in transfer of taught skills.

(k) participants in intern programs similar to the University of Oregon Resident Teachers' Program demonstrate a higher degree of transfer of training than other internship programs or first-year teachers.

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INTRODUCTION

The ultimate purpose of student teaching is the transfer of training from the university campus to the elementary or secondary classroom. Current and historical practices of teacher education institutions appear to have been based on the assumption that student teachers actually use their field experiences to practice the skills they are taught in college. This review will investigate various aspects of student teaching practices as they currently exist and will attempt to relate those matters to the transfer of training question. The paper will focus on representative research published or presented in the last decade, but will draw upon previous research where necessary.

History of Student Teaching

Student teaching no doubt has existed in some form since the very inception of instruction of others as a formalized societal function. It is certainly consistent with the European tradition of apprenticeship and has a well-defined history in the United States. The first state-supported normal school at Lexington, Massachusetts, expected students to "practice in the classroom those principles they had learned in lecture" (McAllister, 1962). This requirement was adopted by a majority of normal schools, and by 1900 student teaching had received almost universal acceptance. In 1920 the National Association of Directors of Supervised Student Teaching was formed with the primary purpose of "test(ing) out in the training school the principles of psychology and education taught in the professional courses,

with the view of eliminating such instruction as will not stand the test of sound experience" (Patterson, McGeoch, & Olsen, 1979, p. 1).

During the decade following World War II increased demands for field placements, the entry of state universities into the field of teacher training, and increased enrollment in normal schools, as they became state colleges, precipitated a shift of student teaching from the campus laboratory school to the public classroom (Joyce, Yarger, Howey, Harbeck, & Kerwin, 1977; Sinclair, 1975). Associated with this shift has been a trend toward greater involvement of public schools and teachers in teacher training programs. This trend is manifest in the progressively greater inclusion of public school personnel in the decision-making process of teacher education, often in the form of a university-school consortium or a teacher education center (Bennie, 1978).

Elliot (1978) cites several reasons for increased contemporary interest in field experience. Among them are: (a) the use of field settings as an integral component of recently developed competency-based teacher education programs, (b) the demand from practitioners to become more involved, (c) the belief that field experiences represent an alternative to campus-based learning activities, and (d) the belief that guided interaction with pupils is essential in learning how to teach.

Models of Student Teaching

While each institution may exhibit certain unique characteristics, five generic models for student teaching programs may be identified: (a) a traditional triad model composed of the cooperating teacher, university supervisor, and student teacher, with the cooperating teacher not intimately involved in the university program; (b) a modified traditional model that

features increased participation by the cooperating teacher; (c) a clinical professor model in which one person, appointed by the teacher training institution and the school or district, serves both supervisory roles; (d) the teacher adjunct model where the cooperating teacher holds primary responsibility for supervision while the university supervisor serves only in a liaison role; and (e) an apprentice model with the student teacher assigned to a cooperating teacher who is primarily responsible both for training and for supervision (MacNaughton, Johns, & Rogers, 1978).

The majority of actual student teacher placements appears to be consistent with the first of these models. University supervision is generally provided by some combination of generalist and specialist faculty members and graduate students in accordance with some adopted policy regarding minimum number of supervising visits (Bowman, 1978; Joyce et al., 1977; Tittle, 1974). Primary criteria for selection of cooperating teachers varies from program to program. The student teaching placement itself is most often a self-contained or traditional classroom at the elementary or senior high school level in a small town or suburban community. Few student teachers gain experience in kindergarten, middle, or junior high schools or in settings through which they are exposed to open classrooms, team teaching, or other non-traditional organizational patterns. Most placements are as seniors, for approximately twelve weeks and 30 hours per week (Joyce et al., 1977).

There has been little change in the basic design of the student teaching program or experience since the mid-forties. Changes occurring have reaffirmed the accepted belief that experiential learning through field placement is an essential component of teacher training. This belief in the

value of student teaching has been supported strongly both by professional educators (Conant, 1963; Elliot, 1978; Smith, 1978) and by participants in training programs (Dickinson, 1979; Gallemore, 1979; Gibson, 1979; Ryan, Applegate, Flora, Johnston, Lasley, Mager, & Newman, 1979). Teacher education program changes most frequently requested or supported are in the direction of increased field experience (Lipke, 1979; Tittle, 1974). However, against the universal acceptance of the value of field experience, a growing body of literature is beginning to question the outcomes of field experience, student teaching in particular, suggesting that it does not facilitate transfer of campus-based learning but, instead, serves primarily as a powerful socializing device which, in many instances, does not reinforce desired attitudes and teaching behaviors (Glassberg & Sprinthall, 1980; Salzillo & Van Fleet, 1977; Zeichner, 1980).

To assess more accurately the value of student teaching as a laboratory for the utilization of training programs, it is instructive to examine the relative influence of factors within the training program, the context of the student teaching experience, and the individual student. The purpose of the remainder of this review will be to examine research relating to each of these factors, the relationships among them, and their influences on the attitudes and performances of the student teacher.

PRE-STUDENT TEACHING EXPERIENCES

Competency and Performance Based Teacher Education

In a survey by McIntyre and Norris (1980) 50% of institutions responding reported utilization of some form of competency-based or performance-based training prior to the final supervised field experience. Given this figure and the extensive descriptive literature relating to CBTE

and PBTE it is surprising to find only a limited number of studies in which either is presented as an independent variable. Sullivan (1979) in a post-hoc comparison of teacher attitude, self-concept, and selected competencies between traditional and PBTE student teachers found no difference in attitude or self-concept between groups and achieved mixed results, mostly favoring PBTE student teachers, in demonstration of competence. France (1979) was able to present a strong relationship between training and ratings of cooperating teachers on 25 program competencies. Additional support from CBTE-type programs may be inferred from research literature regarding specific training interventions (i.e., microteaching).

Specific Training Interventions

Through pre-service training interventions student teachers should arrive at their placements with an arsenal of acquired techniques for fostering personal growth, increasing performance, and encouraging the intellectual and social development of their pupils. Research has documented that training intervention leads to the acquisition and demonstration of such diverse techniques and strategies as self-analysis (Jalbert, 1966; Karani, 1979; Ward, 1979), classroom observation (Bowden, 1978), inquiry training (Sallam, 1979), self-awareness (Ford, 1979; Goldsmith, 1979), non-verbal communication (Garrett, 1979; Huntley, 1978), and enthusiasm training (Bettencourt, 1979; Gillett, 1980).

In observing student teachers, however, one can see a problem stemming from this emphasis upon technique. Popkewitz (1977) suggests that, to an excessive degree, the concern of teaching is "technique, a search for efficient and rational procedures to teach precisely measured skills. Much of internship (is) consumed in applying routinized and standardized

practices. The value of technique (goes) beyond the specific activities interns (are) asked to do. Technique (becomes) the end rather than the means of teaching" (p. 9).

Microteaching. The most common application of microteaching in preservice training has been to provide prospective teachers with an opportunity to practice specific skills and strategies prior to entering the field experience phase of the training program. Typically, the microteaching exercise calls for the presentation of a brief lesson to a small (5-12) group of actual age-level students in a controlled setting where the presenter could practice a target skill, be observed by a variety of methods, and be provided immediate feedback on the strengths and weaknesses of the presentation (Berliner, 1969; Borg, Kelly, Langer, & Gall, 1972; McDonald & Allen, 1967). During the early development of microteaching the use of video-tape recording as the primary means of observation and feedback was considered critical to the process (Belt, 1967; Caldwell, 1977; Ng, 1977). More recently, modifications of the process, notably the use of observational techniques and devices other than video-tape and the substitution of peers for age-level students, have been successfully introduced (Clifford et al., 1977; Herzlich, 1980; McKnight, 1980; Steinbach & Butts, 1969).

Research has associated participation in microteaching with higher ratings for student teaching (Allen & Fortune, 1966; Bell, 1970), greater effectiveness in acquiring and implementing specific teaching behaviors (Borg, Kallenbach, Morris, & Friebel, 1969; Caldwell, 1977; Mackey, 1977; Madike, 1980; Ng, 1977; Sadker & Sadker, 1975; Wagner, 1973) and greater efficiency in training (Kallenbach & Gall, 1969; McAleese & Unwin, 1971; Turney, 1973).

Madike (1980) compared student teachers with pre-student teaching microteaching, pre-student teacher observation, and no pre-student teaching activity on frequency of performance of nine behaviors correlated with pupil achievement and achieved a significant difference in favor of the pre-student teaching microteaching group.

Warner (1981) attempted to study the effectiveness of microteaching in producing a transfer of skills from the laboratory to the classroom. The mean scores for the use of skills, 13 to 18 weeks after the laboratory sessions, indicated a strong degree of consistent transfer. Students who received feedback on their initial student teaching lessons increased the use of their skill.

Other research, however, does not as strongly support the transfer of training effects gained through microteaching to student teaching and the relationship between classroom performance and microteaching remains inconclusive (Copeland & Doyle, 1973; Hansford & Copeland, 1979; Johnson & Pancrazio, 1971; Taylor, 1981). Degree of transfer is seen as dependent upon environmental factors and ecology of the classroom as well as upon training methodology (Copeland, 1977, 1978; Doyle & Ponder, 1975; Gall, 1977).

Simulation. The effectiveness of simulation as a skill training methodology has long been recognized by the armed services and technical schools, and has wide usage in teacher training institutions offering certification in vocational or business education. Beginning teachers trained through simulation technique exhibit a higher degree of teaching skill transfer than those trained by other methodologies. Cruikshank and Broadbent (1970), in a most extensive study of the simulation methodology,

found that while "simulations add new dimensions to programs intended to prepare educational professionals . . . teacher education institutions have failed to provide an adequate place for them." In a recent study, Blanton (1980) felt that simulation "does make teaching more effective" as it "helps to involve students." A basic shortcoming of the latest research on simulation is that it centers on the skill training necessary for teachers in fields other than the liberal arts content areas. A major, but not so insurmountable, problem seems to lie in the fact that to develop simulations for the liberal arts content areas the training will be very costly, both in budgets and staff time. One approach that could be considered is a research effort directed toward discovering the applicability of existing skill training simulations to the liberal arts content methodology. Since transfer of skills from a theory base to the reality of classroom use is of prime interest to teacher educators, why is there such a dearth of research?

ECOLOGICAL CONTEXT OF STUDENT TEACHING

William Copeland (1979) has suggested "relationships that have been detected between cooperating teachers and student teachers may be the result of the shaping forces exerted on both by the ecological system of the classroom." Willis Copeland (1981b) in support of the previous statement has concluded, "The formation of concepts about classroom environments can only come from contact with the environment." From the same study he states, "Student teachers who enter classrooms must acquire the concepts which allow them to respond to the incredible variety of things in that environment and act intelligently toward them," and "It is clear that a teacher training programme must ensure that student teachers are able to formulate concepts

that allow them to identify and interpret the variety of events and processes that occur in classrooms" (p. 15).

Ecology is the science of the relationships of organisms to their environment. The personal values and responsibilities of participants in the student teaching experience, and the covert internal and external institutional forces, all interact to create an environment within which the student teacher and other participants must function. As McDermott (1976) contends, "people in interaction become environments for each other." In discussing social settings and human behavior, Sevigny (1981) has emphasized, "actions do not occur as isolated events, but rather are linked to each other as one member responds to, and anticipates, the actions of others. Any particular action then, is embedded in a process of interaction involving several participants to each other's actions."

If such ecological systems within the confines of a classroom play a large role in the relationships between the pupils, the cooperating teacher, and the student teacher, it is reasonable to assume that there are additional influencing factors in the student teaching experience in general.

If student teaching is to be a meaningful and effective experience all environmental influences surrounding the participants need to be explored, evaluated and, perhaps, compared one against the other in a contextual framework.

The impact of the cooperating teacher, the tenuous position of the university supervisor, the personal values and life style of the student teacher, the powerful interactive effect of combining the primary participants into a triadic structure, and the environmental forces of the

classroom and the school are all variables requiring consideration.

The Cooperating Teacher

Educational researchers have accumulated a substantial number of studies that indicate the strong relationship between the student teacher and the cooperating teacher (Mahan & Lacefield, 1978; Matthews, 1967; Seperson & Joyce, 1973; Tabachnick, 1980; Templin, 1979; Yee, 1969; Zevin, 1974 among others). Zevin (1974) concludes student teachers tend to imitate their cooperating teachers in the field, regardless of approval or disapproval of college supervisors or instructors.

On the other hand, not all research has supported as strongly the idea that the cooperating teacher is the most influential factor in the student teaching experience (Boschee, Prescott, & Hein, 1978; Campbell & Williamson, 1978; Spruce, 1979; Young, 1971). Spruce (1979), while observing attitudinal shifts toward children, was not able to relate such shifts to similarities in attitude or amicability between student teachers and cooperating teachers. McIntyre, Buell, and Casey (1979) were unable to establish a relationship between verbal behavior of the cooperating teacher and student teacher, nor were they able to identify modeling behaviors. This latter study is supported by Lortie (1975) who suggests student teaching simply serves to activate the internalization of teaching models and philosophies previously held by the student teacher.

The strength of the cooperating teacher/student teacher relationship may not be defined conclusively; however, upon looking more closely at research conducted on the student teaching experience, one finds the possibility of the relationship being a detrimental factor. Friction and incongruence may develop or exist between the cooperating teacher and student

teacher which can have negative consequences to the student self-image and ego strength, and thus affect the student teaching experience (Edgar, 1972; Morra, 1977). It becomes evident the relationship between the cooperating teacher and the student teacher is delicate and precarious when one considers that (a) the most frequent criterion for selection of cooperating teachers is "their willingness to have student teachers"; (b) very few cooperating teachers have training in human relations skills; (c) cooperating teachers are not trained for the role (Funk, 1974); and (d) supervisors often fill the role of counselor, trapping the student in a conflict situation between the cooperating teacher and supervisor because of widely differing conceptions of the ideal teacher (Prokop, 1971).

Leslie (1971) attempted to influence the relationships between cooperating teacher and student teacher by assessing the degree to which pairs were matched on selected psychological and demographic variables. It was concluded that, while matching may be productive, the whole excitement of student teaching, along with difficulty in categorizing human characteristics, discouraged the process as a practical strategy.

Easterly (1977) in looking at the relationship between the cooperating teacher and student teacher conversely suggests field experience placement should be based upon a congruence of common attitudes and beliefs and/or demographic variables between the two people involved, and the pre-teaching experience will be more successful when such a placement occurs.

In support of the congruence in placement theory, Lock (1977) concluded twenty-five percent (25%) of all the problems identified by 149 student teachers resulted from personality problems between the cooperating teacher and student teacher.

Tittle (1974) in her study of 2,180 student teachers, 2,128 cooperating teachers, and 248 supervisors reported twenty-five percent (25%) of the student teachers perceived their "worst experience" in student teaching was personal or professional disagreement with the cooperating teacher. On the other hand, only six percent (6%) of the cooperating teachers felt this to be of major concern. This study was supported additionally by the work of Purcell and Seiferth (1978) offering substantial evidence for this problem as it related to pre-service training. In addition, ratings of the student teachers and college supervisors in Tittle's study indicated they perceived "the cooperating teacher as more of a problem" than did the school itself.

Supervisors often see evidence of this situational instability. Southhall and King (1979), surveying supervisors' perceptions of incidents in student teaching, found the most common critical occurrance to be a perceived lack of communication between cooperating teachers and student teachers. Supervisors indicated an additional source of conflict between cooperating teachers and student teachers occurred when the student teacher did not appear to be living up to the expectations of the cooperating teacher, and this failure led to a disintegration of the relationship.

Feshbach and Campbell (1978) commenting on the incongruence of values between cooperating teachers and student teachers has illustrated the existence of diverse opinions in the area of corporal punishment. Their findings indicate cooperating teachers favor corporal punishment, while student teachers have an opposing view.

The individuality of cooperating teachers and student teachers is further expressed in a study by Boschee, Prescott, and Hein (1978), where findings indicate there is no predictable relationship between the

educational philosophy of the cooperating teacher and the student teacher following the student teaching experience. Findings included the opinion that the educational philosophy of a cooperating teacher does not significantly influence the educational philosophy of a student teacher assigned for twelve weeks of clinical experience.

Loadman and Mahan (1973) reported that student teachers rated cooperating teachers who held highly traditional or highly progressive educational attitudes as less effective, indicating a possible differentiation of philosophy at the end of the student teaching experience.

In opposition to the above statement, however, McIntyre, Buell, and Casey (1979) cite several studies (Dunham, 1958; Karmos & Jacko, 1977; McCanley, 1960) that indicate student teacher attitudes and philosophies approximate those of the university supervisor while a student is on campus, but shift toward those of the cooperating teacher during the student teaching experience.

Given the research evidence in support of the strength of relationship between the cooperating teacher and the student teacher, it is not unreasonable to expect that considerable effort is being expended, to counter the influence of cooperating teachers, in support of program directions. Some such efforts have been documented. Stahl (1979) demonstrated a change in supervisory behavior and attitude of the cooperating teacher following inservice training, and Fisher (1980) measured a positive change in student teacher attitude following training for cooperating teachers. Kilgore (1979) traced influence in student teacher verbal behavior and found interaction when both cooperating teacher and student teacher participated in a common training activity. Hill (1977) concluded that the use of

communication skills and supervisory techniques could be developed through laboratory training and that these skills would persist for at least six weeks.

It is interesting to note that, in general, research shows the cooperating teacher to have much greater influence over the student teacher than the university supervisor (Yee, 1967; Zevin, 1974).

The University Supervisor

The tenuous position of the supervisor's role is illustrated in studies suggesting the university supervisor has little effect upon the attitudes and performance of student teachers (Morris, 1974; Schueler, Gold, & Mitzel, 1962; Sundgren & Schmidt, 1956). Morris (1974) noted student teachers without a supervisor perceived they were performing better than those with a supervisor. On the other hand, Bennie (1964) found "a consensus among 171 beginning teachers that university supervisors were of slightly more assistance than cooperating teachers." Zimpher, de Voss, and Nott (1980) describe the supervisor's position as highly complex, but identified the supervisor as the one person who provided critical and evaluative contributions to the student teacher's progress. The incongruence of the above findings indicate further research is needed in the area of the supervisor's personality and influence upon the student teacher.

When looking at the personalities of the student teacher and the university supervisor specifically, the process of supervision may be iatrogenic in nature--a process designed to promote growth which may in fact produce the opposite. Thies-Sprinthall (1980), examining aspects of supervision, investigated whether supervisors at more complex stages of conceptual and moral development are more effective in their role, and,

conversely, if supervisors at lower stages are providing ineffectual or negative supervision for student teachers. She concludes "supervisors who themselves are at modest levels of psychological development may misperceive or misunderstand the teaching performance of more developmentally advanced student teachers." Additionally, her study indicates supervisors at a higher stage of development "apparently can recognize effective indirect teaching modes and produce confirmatory subjective assessments."

In pursuit of special interests researchers have investigated specific areas of concern regarding the impact of the supervisor upon the student teaching experience. For example, McIntyre, Vickery, and Rusk (1980) conclude that "university supervisors do not affect the student teachers' verbal behavior differently" when the student is under observation. Copeland (1979, 1981a), in looking at gender related preferences of student teachers, concludes student teachers tend to favor supervisors of the opposite sex, and prefer a directive approach to supervision. In addition, Lorsch (1981) has indicated there is a preference for directive supervision techniques. Acheson and Gall (1980) in their book Clinical Supervision take a different viewpoint and propose that supervision will progress from a direct to an indirect nature, and they indicate "The data we have on what teachers want from a supervisor suggest a fairly open and democratic approach for most teachers."

In studies examining the effect of supervision, relationships have been established between several sources of feedback and change in student teacher behavior. Objective feedback based on classroom observation has been found to influence variability in teaching style and patterns of teacher verbal behavior (Good & Brophy, 1974; Moore & Shaut, 1976; Wragg,

1971). Reinhartz (1978) devised a system of immediate pupil feedback to student teachers and demonstrated significant difference between experimental and control groups. Yates (1978), also using pupil feedback as an independent variable, found significant differences between experimental and control groups. Yates assessed dissonance between ideal and actual (reported) teacher behavior and found change in response to student feedback significantly greater for high-dissonance than for low-dissonance subjects. Callahan (1976), using pupil feedback for student teachers in secondary classrooms, was able to demonstrate a shift in attitude. Peers also may provide feedback capable of influencing student teacher behavior (Dodds, 1979; Reich, 1975).

Research examining video feedback as a mechanism for change is consistent with those studies using other technologies (Caldwell, 1980; Fages, 1978; Leonard, Gies, & Paden, 1971). There is some evidence that video feedback, even in the absence of formal supervision, is effective in bringing about change in teacher behavior (Edwards, 1975) but is probably most effective in combination with other supervisory techniques.

The overall evidence seems to strongly support the inference that student teachers are able to process data from a variety of sources and translate that information into perceptible changes in teaching behavior.

The Student Teacher

Whether supervisory input is direct or indirect, or whether there are ideological differences between the student teacher and cooperating teacher may be of little consequence if one fails to consider one of the major factors surrounding the student teaching experience--the individuality, attitude, and personal life style of the student teacher herself/himself.

de Voss (1980), looking at the difference between successful and unsuccessful field experiences, suggests student teachers must have "the ability to put all other life needs aside," and the amount of time a student teacher has available to give to the experience is an indicator of his/her performance. A supportive spouse and children at home who remain healthy can add stability to the pre-service experience.

In support of these findings, Lock (1977) received information from student teachers indicating that the pre-service experience had come to dominate their lives temporally, economically, and socially. Findings in this study indicate student teachers suffer a form of culture shock when entering the experience of being submerged in a social system dominated by young people, and their primary task may be one of adjusting to a new culture.

Accordingly, concerns are expressed over discipline, relationships with pupils and supervisors, and ability to satisfy instructional and pupil needs (Blankenship & Cunningham, 1979; Cohen, Mirels, & Schwebel, 1972; Freeland, 1979; Joyce et al., 1977; Morris & Morris, 1980). Fuller (1969) assessed student teacher concerns at two-week intervals throughout their assignment and identified a progression of these concerns from "my performance" and "discipline" to greater focus on welfare of students and outcomes of instruction.

Student teacher concern over interpersonal relationships also is reflected in perception of reward. Asked to report their most successful and most unsuccessful experiences, student teachers surveyed by Lowther (1970) indicated greatest success and satisfaction from activities that involved them in active relationships with pupils in the classroom. In

relation to the self concept of student teachers, the criterion of success frequently used was the amount of personal satisfaction generated rather than the achievement of instructional objectives.

If time, interpersonal relationships, and the demands of instruction are forces with which the student teacher must contend, perhaps an even more important factor to consider is the attitude the student teacher brings to the field experience. Hatfield (1961), in an experimental study of the self-concepts of student teachers, using matched groups (one identified as inferior performing student teachers and one identified as successful performing student teachers), found a significant difference in the self-concepts of each group. One factor in student teaching might well be the feeling of adequacy that the student has concerning his/her own abilities. de Voss (1980) concludes from his study, "Prospective student teachers who are convinced that student teaching is necessary and that the particular setting is representative of their future classroom are more likely to give off an air of dedication and serious intent."

The Triad

Several studies have investigated the cooperating teacher, student teacher, and supervisor as members of an interactive force known as the "triad" (Barrows, 1979; Lipton & Lesser, 1978; Yee, 1967). Lipton and Lesser (1978) have concluded, "Each member of each triad enters the relationship as a separate entity. Since each member is different . . . no two triads are alike." Kaplan (1967) suggests there may be differing interpretations of individual roles within the triad, with the finding that the three members have different perceptions of the role of the supervisor. This finding, among others, may provide

insight into the reason Lipton and Lesser (1978) have suggested "The most effective triad consists of individuals who are relatively autonomous."

Barrows (1979), in her study of the power relationships within the triad, concludes that a hierarchy of power forms during the student teaching experience. She contends, "All three members are not equally powerful" but that the cooperating teacher holds a very powerful position. In opposition, she feels that the student teacher is in an inferior position with little or no power, and that the supervisor plays a tangential role and functions only to corroborate the opinions of the cooperating teacher, especially in the area of evaluation. Barrows concludes that the nature of the power relationship in the triad "undermines program goals and transforms supervised student teaching into an apprenticeship program which produces classroom technicians."

On the other hand, Clark and Marker (quoted in Ryan, 1975) cite conflicting evidence as to the power of the cooperating teacher in the triad. The responsibility of providing a "good model," the lack of supervisory training, and the fact that there is no choice in the student teacher selection process are but three reasons why the cooperating teacher may be unable to dominate the relationship.

Barrows (1979) and Yee (1967) both contend that, over time, coalitions may form within the triad where the cooperating teacher and supervisor align against the student teacher. Researchers seem to agree that the student teacher has little influence and occasionally can be portrayed as the helpless individual caught in the middle. Peterson (1977), in support of this view, comments "the very structure of the student teaching triad may facilitate conflict and coalitions." He further postulates "the very position or role

of the student teacher seems oriented toward a confrontation or precarious balance between idealized academic knowledge on the one hand, and the practical authority demands of the classroom on the other," and student teachers receive an early orientation toward confrontation between idealized educational views and practical role demands. Peterson, referring to the work of Iannacconi and Button (1964), re-establishes the inference that student teachers are "able to integrate or suspend their rather idealized academic views in adapting to the practical demands of classroom teaching and the views of the cooperating teacher."

The student teacher is caught in the middle between the practical/academic poles separating college supervisors and cooperating teachers. The supervisor, even with prior experience in the classroom, has become academician in nature and stresses learning general principles and the importance of vocational success, while the cooperating teacher is more concerned with classroom management and teaching strategies. Consequently, the student teacher's role becomes socially structured around the demands of these two polar systems (Peterson, 1977).

The degree to which the role perceptions of participants of the triad are consistent and shared influences the quality of the student teaching experience. Of each of the roles, that of the university supervisors appears most congruent. Research among institutions and across levels (elementary/secondary) reveals common patterns of perceptions and behavior (McIntyre & Norris, 1980; Moore, 1975; Page, 1979). Ambiguity in role was reported by Bicknell, Bruce, Jones, Hull, Petrie, Rector, and Wheeler (1974) for nature of perceived relationships between cooperating teacher and university supervisor, collegial or superordinate, and for responsibility in

decisions relating training to classroom teaching. Incongruence in role perception to varying degrees is reported in studies by Coulter (1975), Gettone (1980), Luke (1979), and Uhia (1979), with Luke, Uhia, and Coulter each citing incongruence of sufficient degree to cause role strain. Perrault and Laktasic (1979) found student teachers most effective when congruence of role perception between the cooperating teacher and student teacher was high and Nelson and Hutchenson (1970) describe a positive relationship between compatibility among participants and student teachers' grades.

The Classroom Environment

Research into the individuality of the participants, the triad, and the external forces may give us a better picture of the student teaching experience, but our view is incomplete without an investigation into the demands of the classroom in which the student teaching experience takes place. "The study of student teaching is in large measure a study of induction into the classroom environment" (Doyle, 1977a).

"Every classroom is a part of a larger context called a school, and every school is part of a larger context called a community. The school as a context influences powerfully the difference a teacher can make in a classroom" (Schalock, 1981).

Doyle and Ponder (1975), in investigating the impact of environmental factors on classroom behavior, conclude it is a neglected dimension of the research into student teaching. They state, "Skill training designs . . . have generally shared the underlying if unstated premise that teacher behavior occurs independently from the contingencies operating in the classroom environment," and "patterns of (teacher) behavior may conflict

with the ecological demands of operating a classroom group."

From his 1977 study Doyle postulates "the classroom environment is a substantially more important factor in shaping teacher behavior than has been conventionally recognized, and that some teaching skills only become usable after the teacher has first mastered classroom demands." An interpretation of his work indicates simultaneous internal events, external interruptions (see Erickson, 1980), and varying activity structures create multidimensional classrooms and institutions with which the student teacher must react and interact. Student teachers can become overwhelmed by the sheer quantity of activities occurring at the classroom or institutional level (see Fuchs, 1969). French and Galloway (1970) have indicated through their work that classroom interactions and activities may include (a) communication events (teacher/pupil communication), (b) institutional events (expectations of the classroom and school building), (c) task events (teaching/learning of subject matter), (d) personal events (where the needs, emotions, and goals of the cooperating teacher and pupils are met), and (e) mixed events (a combination of all four above). In his 1977 study, Doyle identified adaptive strategies implemented by student teachers to meet the ecological demands of the classroom and the complexity of the institutional environment. These strategies, which were often incongruent with the demands of the classroom and institutions, varied in implementation from subject to subject and were situationally dependent.

The School

Several studies assessing the impact of placement in low-income or inner-city schools have been accomplished. Two of these studies report a negative relationship between placement in inner-city schools and student

teacher self-concept (Smith & Adams, 1972; Smith & Smith, 1979) and Campbell and Williamson (1978) found inner-city student teachers more custodial both prior to and following student teaching. Tabachnick (1980), in a longitudinal study of 225 Teacher Corps interns at 54 low-income sites, describes a subtle shift of attitude from one of self-confidence and child-centeredness to one of acceptance of environment and a teacher-centered or survival oriented view of children and teaching. The Tabachnick study is notable because of its attention to the powerful socializing effect of student teaching and its relationship to environment. In studies similar to those above, but not specifying inner-city or low-income placement, both ratings of student teacher performance (Gallagher, 1979) and change in self-concept (Camp, 1979) were found to be environmentally related.

McDonald (1980) has commented, "Each school is a social system of its own, culturally or socially different than other schools, even though sharing characteristics in common with these other schools," and "the teacher will . . . have to learn how to live with the conditions of teaching in that particular school."

The theory that field experience in one classroom, or institution, may be too confining an experience prior to teaching, or situationally difficult is shared by other researchers. Clegg (1979) comments, "there are distinguishing characteristics between schools related to instructional decision making," and "each school represents uniquely different expectations for teachers and their institutional roles, including their own idea of the model teacher."

Building upon this theoretical framework Clegg continues by stating, "Few programs have attempted to train teachers to work in different school

environments or various organizational structures. . . . There seems to be an assumption in teacher education programs that a beginning teacher who is effective in one school setting will be equally effective in almost any other."

In summary, Clegg comments student teachers "must be able to adapt their instructional roles to fit the organization of the school in which they are teaching," and recommends that pre-service experiences include multiple site training and orientation into the subtle differences of schools. It is highly probable student teaching experiences that lack such ecological or comprehensive representativeness may be useless or even harmful in preparing student teachers to function in the classroom environment (Doyle, 1977a).

OTHER FACTORS

Personality

Using the Cattell inventory (Cattell & Eber, 1962), Heddendof (1971) assessed the personality types of student teachers and categorized them as "successful professional" or "successful teacher," with the successful professional being more assertive, dominant, liberal, and the successful teacher being more conventional, passive, and self-disciplined. Following student teaching, a greater number of the successful professional personality type elected not to continue in teaching.

Research based on the California Personality Inventory (Gough, 1957) and the Cattell Sixteen Personality Factor Questionnaire also suggests a "syndrome of temperament" in which the successful teacher is characterized as a steady and reliable, although somewhat unimaginative, person (Gough, Durflinger, & Hill, 1968; Heddendof, 1971).

Additional studies examining personality factors as correlates of teacher success have addressed such factors as (a) dominance and submissiveness--finding that student teachers at the extreme of either scale are unsuccessful (Coody & Hinley, 1967), (b) moral development--with high moral state reasoning not related but preconventional moral state reasoning inversely related to success (Barton, 1979), and (c) self-concept--which appears consistent in its positive relationship to success (Crane, 1974; Garvey, 1970; Miele, 1979).

MacDonald and Zaret (1971), in a study of the relationship between student teaching and first-year teaching behavior, noted that predictions of success by university supervisors prior to student teaching held true through student teaching and also first-year teaching. The question was posed, "Is there a global quality about individuals tied to personality and ability but evidenced in interpersonal relations as a gestalt that remains essentially consistent regardless of training method or traditional student teaching experience?" The question is critical to the whole construct of teacher training and is disturbingly corroborated by Krasno (1972). It was found that students who survived as teachers entered the field with a given attitudinal set and that this set could be differentiated by pupils on the basis of a single 40-minute lesson and without other knowledge of the teacher's behavior or belief.

Attitude and Value Changes

A widely documented effect of student teaching is that of change in attitudes or values with student teachers becoming more custodial (Hoy, 1967), less idealistic (Caffee, 1979; Weinstock & Peccolo, 1970), less open-minded (Dispoto, 1980; Kulm, 1975), more bureaucratic (Hoy & Rees, 1977),

and lower in valuing of independence, trustworthiness, and flexibility (Rodenburg, 1979). However, one must take care in interpretation of such research. Not all studies have demonstrated negative or undesired shifts in attitude (Callahan, 1980; Elsworth & Coulter, 1978). There is a lack of research associating specific values, attitudes, or changes in attitudes with observable student teacher behaviors (Caffee, 1979; Sturm, 1979), and there may be a question of semantic interpretation. For example, is an increase in valuing of "firm control" (Callahan, 1980) equivalent to "becoming more custodial" (Caffee, 1979)?

Recent research by Walker and Hersh (1981) provides an indication of greater stability for at least some types of attitudes held by student teachers. In an assessment of teacher expectations for social behavior standards and tolerance toward behaviors characteristic of handicapped children, Walker and Hersh found similarity in responses of intern teachers, student teachers, pre-service practicum students, and inservice teachers. Their results suggest that standards and expectations relating to handicapped children or to broader expectations for social behavior already may be well formed and quite stable before students begin their formal preparation as teachers.

Socialization

A number of researchers have interpreted change in attitudes and values of student teachers as a product of socialization. Student teaching is a time of much risk, much experience of failure, if only momentary, and much concern for ego defense. Under these conditions, the more controlling, authoritarian attitudes of the cooperating teachers and others in the school offer refuge from a storm of ambiguity. Student teachers succumb to the

temptation to be like those around them, those who seem to survive in the school setting (Mahan & Lacefield, 1978).

Corbett (1980) proposes that problems related to teacher training are essentially problems related to occupational socialization and states the implications of research on occupation socialization:

> Findings suggest that others influence trainees not as a result of the positions they occupy but as a result of how the positions they occupy are related to the position of the trainee. Individuals who have the greatest opportunity to observe trainees, to be observed by them, and to discuss these observations should be the individuals who influence trainees the most. In teacher education programs, cooperating teachers typically enjoy such opportunities more than college personnel (p. 12).

Corbett's implication appears well supported by research. Most studies reviewed that have examined the influence of significant others in the life of a student teacher have approached the question rather directly. They ask, in one way or another, "Who are the people who have had the most influence on the formation of your professional identity?" They define significant others as those who "direct and guide role behaviors as they assume the role of coach, either directly or indirectly" (Karmos and Jacko, 1977). Of all those whose activity impinges on the student teacher, the cooperating teacher is far and away the most important. However, the cooperating teachers are not the only source of socialization pressure nor may they always constitute the primary socializing force (Boschee, Prescott, & Hein, 1978; Campbell & Williamson, 1978; Young, 1971).

Tabachnick, Popkewitz, and Zeichner (1980) suggest that the university itself, through encouragement of acquiescence and conformity to existing school routines, contributes to socialization in a manner complementary to the public school. Finally, Beck (1974) collected data from observations of

student teaching as recorded in student teachers' journals and, by stating that experience of failure led to a "regression into ego-centrism and a tendency to identify strongly with (their) students and become dependent on their approval for support," presents students themselves as a significant socializing force.

In an interesting twist to the question of socialization, Nerenz (1979) assessed change in behavior and belief of cooperating teachers following assignment of student teachers. Using a control group design, change was demonstrated on both dimensions.

THE TRANSFER OF TRAINING

For several decades, researchers have attempted to identify those characteristics of teachers that make them successful. Delineation of criteria for determining the specifics for successful teaching has proven difficult, and there is little consistency in the research in terms of procedure or paradigm. However, recent research on teacher and school effectiveness has begun to define a number of teacher-related variables that, taken together, are significant predictors of effective teaching (Bishop, 1981; Council for Educational Development and Research, 1979; Hersh, 1981; Rosenshine & Berliner, 1978). The task of the teacher training institution is the translation of these identified variables into patterns of behavior ultimately to be incorporated into technique and style of the classroom teacher. Traditionally, these institutions have relied upon student teaching as the mechanism by which this transfer from training program to the real life of the classroom is to occur. That this transfer can or does occur, however, is somewhat in doubt (Bicknell et al., 1974; Glassberg & Sprinthall, 1980; Salzillo & Van Fleet, 1977; Zeichner, 1980).

Student teacher concerns about self adequacy, their pre-occupation with classroom management, and the importance of socialization factors seem to be sufficiently powerful as a coherent whole to cause one to seriously question the high regard that teachers and pre-service teachers hold for student teaching. The value of the classroom as a real-world setting in which trainees may demonstrate teaching skills and strategies recommended by the training institution must be viewed with some skepticism.

Early Research

The question of transfer of learning can be traced to the early works of William James and Thorndike at the turn of the century (in Taba, 1962). Their findings highlighted the need for almost exact duplication of conditions for transfer to succeed. Judd's 1908 classic "generalization" experiment emphasized the need for strong links between theory and practice to enable transfer to be successfully accomplished (in Taba, 1962). More recently, Bruner (1961) has given further support to the notion of "generalization." His call for an understanding of the main principles and ideas linked with specific instances of a general case is thought to provide a main track to transfer. It is this approach that appears to have been the underlying principle of many teacher education programs of recent times.

Recent Investigations

Educational investigations during the last decade seem to have rediscovered the importance of ecological or environmental factors (Doyle & Ponder, 1975) and proponents of the socio-anthropological investigation of student teaching and classroom processes have begun to make an impact with their holistic-descriptive probes into the field. Their recent growth is somewhat at the expense of the psychometric mode, which is increasingly

criticized (Zeichner, 1980) for its inability to produce much in the way of definitive results despite decades of research on teaching skills: "There is no conclusive empirical evidence that the target behaviours are related consistently to any criteria of teacher work success" (Popkewitz, Tabachnick, & Zeichner, 1979). According to Popkewitz and others (1979) the dominant empirical paradigm is based on the belief that teachers' overt behavior, when correctly adapted, enables one to control and direct specific outcomes of teaching. Copeland (1980), in an article focusing on the demands of the classroom environment, criticized the recent studies of the classroom for their assumption that teachers are the causative factor. Doyle (1977b) also suggested that one should look at the interaction of all the participants and their interaction with the environment: "Teachers may be the product of pupil actions as much as the cause." Nevertheless, despite well founded criticisms of approaches that try to isolate one or two teacher behaviors, the microteaching studies and similar experimental research offer some of the most fruitful lines for any current investigations on the transfer of training.

Joyce and Showers (1981b) have compiled a comprehensive treatment of the transfer of training question. In their review, two hundred studies were examined and reduced to 67 through the application of strict research design criteria. The studies were categorized according to the training elements they revealed (theory, demonstration, practice, feedback, and coaching) and the training effects or outcomes (knowledge, skills, transfer). Only two studies (Good & Brophy, 1974; Jacobson, 1977) included all the elements identified and completely traced them through to reveal a full picture of the outcomes. Twenty-two of the studies looked at some form of transfer,

mostly short term, while the remaining 43 made no attempt to investigate the phenomena at any level.

Joyce and Showers mainly focused on in-service training programs. Their studies indicate training activities that have concentrated only on the theory element achieve over 80 percent transfer of knowledge, less than 20 percent acquisition of the skills involved and between 0 percent and 2 percent transfer of the techniques to the classroom setting. A combination of theory and demonstration doubled the acquisition of skills but did not alter the classroom transfer aspect. The inclusion of practice and feedback was said to improve the transfer effect to about 10 percent, while it required the combination of all five elements to achieve a substantial effect on transfer to classroom practices. When all five elements were used in sequence, a 90 precent transfer effect was achieved. The findings have powerful implications for those involved in the methods or skills areas in both pre-service and in-service teacher education; however, the projected percentages of transfer do require further research to be validated.

The Workplace and Transfer of Training

A look at the pervasive power of organizational socialization may help to highlight the major influences inherent in investigations of the transfer of training in the workplace. Work by Van Maanen and Schein (1979) is useful to illustrate this issue. Their studies have focused on training schemes related to the workplace and, although they refer to professions and occupations other than teaching, parallels can be drawn.

In an initial discussion of formal socialization, which Van Maanen and Schein (1979) describe as a set of experiences deliberately planned in a

training situation separated from the workplace, the two writers gather support for their paper by reference to Bidwell (1962) and Schein and Bennis (1965). They illustrate how the formal socialization process will cause the trainee to be less able to generalize and carry over abilities or skills to the workplace. Most formal socialization programs therefore concentrate more on developing the correct attitudes in their recruit--for example, armed forces, policy academy. Research shows, says Van Maanen and Schein, that groups consider this training as "dull, irrelevant, and abstract" and thereby paradoxically express the attitudinal values relevant to their occupational group. Informal socialization is seen as being "more powerful for shaping work behaviours because it involves on-the-job relevance and teaching by people who are obviously doing the job." Recruits placed with "organizational man" become more likely to maintain the current practices, while others placed with "innovative man" become more innovative. Training programs most likely to effect custodial responses are "sequential, variable, serial and involve divestiture rituals" (Van Maanen & Schein, 1979, p. 64). The latter element refers to the redefinition of self which occurs through on-the-job initiation or orientation--for example, screening and rigorous certification procedures.

Van Maanen and Schein's account places emphasis on features of training schemes and their influence on the trainees' performance in the workplace. However, as with many educational research commentaries, the focus tends to remain on the significant actors, the co-operating teacher, and the supervisor, rather than on the whole gamut of environmental factors (Gage, 1978). "In keeping with the ecological nature of classroom teaching and learning, the 'whole phenomenon' must be considered when addressing a specific problem" (Fisher &

Berliner, 1979, p. 46). While the quote refers to claims for a clinical inquiry approach, which "frequently employs methods suggested by the phenomena itself" (p. 47), the point is well made and highlights the need for encouraging other approaches to complement the conventional experimental mode that currently dominates research.

The socio-anthropological approach to classroom research attempts to account for the phenomena of the whole environment. This field is well represented by Copeland (1977, 1978, 1980, 1981b), Copeland and Doyle (1973), Doyle (1977a, 1977b), and Doyle and Ponder (1975). In a recent article discussing the acquisition of teaching skills in relation to clinical experiences in teacher education, Copeland's findings (1981b) parallel those of beginning teacher inquiries (Otto, Gasson, & Jordan, 1979; Taylor & Dale, 1971). "Teacher educators who emphasize the acquisition of discrete teaching skills outside the context of the classroom environment are not offering student teacher training which can realistically be assured to effect subsequent classroom performance" (pp. 6-7). The powerful forces in the public classroom that shape student teacher behavior seriously inhibit opportunities for practice of the skills learned in the training program. Doyle and Ponder (1975) would add the rider: "unless those skills or strategies are congruent with those already in operation in the classroom." Laboratory skill training has been shown to be effective in obtaining the exhibition of skills immediately following training (Borg, Kallenbach, Morris, & Friebel, 1969; Davis & Smoot, 1970; Sadker & Sadker, 1975). However, it bears little or no relationship with the use of the target skill in the classroom at a later date (Copeland & Doyle, 1973). "Only when microteaching was complemented by appropriate intervention

behaviour (direct and effective supervision by the co-operating teacher and/or modelling of the target skill by the co-operating teacher) did any significant behavioural differences result" (Copeland, 1977).

Doyle (1977a), in producing an ecological analysis of the classroom environment for the student teacher, concluded that teachers reduce the complexity of the setting by learning a set of specific skills to master the environmental factors. They are "chunking" (grouping of discrete events), differentiation (able to distinguish between the importance of events), overlap (handling several events at once), timing and rapid judgment (p. 52). According to Doyle, many of the teaching skills used in training programs may not be usable until mastery of the ecological demands is achieved. This seems to be supported by beginning teacher studies (Otto et al., 1979) and other enquiries focusing on the major concerns of student teachers (Sinclair & Nicoll, 1981).

Internship and Transfer of Training

There are few researchers who do not identify the forces of socialization and feelings of inadequacy on the part of the novice teacher as the two most potent, and possibly critical, aspects of the induction period, regardless of its length or type. Sarason (1971) cites what he calls the "personal dilemma" of the teacher, the need to constantly adjust and cope. He assumes that the most disabling part of the attempt to do so comes from the upsetting realization that a good part of the problem resides in the teacher's knowledge that he/she lacks understandings, techniques and skill, and that the novices become almost immediately aware, upon entrance into the classroom, that their formal training has ill prepared them for the realities of classroom life.

Progress has been minimal, over the last decade, in assisting young teachers to cope with the induction into public or private schools (Ryan, 1970, 1974a; Ryan et al., 1980). The twelve accounts in the most recent of the Ryan et al. works, Biting the Apple (1980), begin with high expectations, eagerness, seemingly adequate training and end largely in discouragement. These may be isolated incidents or they may reflect the norm. Unfortunately, the literature suggests the latter.

The basic purpose of internship, as contrasted with the more common field experience labeled "student teaching," is induction, which is a form of inservice and something of a departure from the more usual extension of training objectives (McDonald & Elias, 1980). McDonald does not negate the purpose of assessing technique or diagnosing attributes of competence as major outcomes of internship. He assumes the internship should not be analyzed as a first year of teaching. However, literature points to the fact that even the "best" of current programs do not emphasize the "learning in a safe environment" concept enough, and in that error do little to make the initial socialization and induction easier for the intern than it is for the traditional first-year teacher. The internship too often is just another first-year job with some university, or on-site teacher, with the staff support component being "tacked on" (Blackmore, 196[illegible]; Haberman, 1975; McDonald & Elias, 1980).

The components most often cited in the literature as comprising the critical aspects of the internship include, but are not limited to, the basic task areas of (a) using the skills of teaching and (b) adapting to the social system of the school. If one is to believe Van Maanen and Schein (1979), what people, including teachers, learn about their work roles in

organizations is often a direct result of how they learn it. The premise they present is clear; "new members must be taught to see the organizational world as do their more experienced colleagues if the traditions of the organization are to survive." Small wonder that new, energetic, enthusiastic teachers are soon "custodialized." However, student teachers with early and extended field experience have been shown to be more self-confident and assured than traditional student teachers (Swann, 1975), and students participating in a four-year training program were rated more favorably by pupils, although not by cooperating teachers, than students in a transfer or post-baccalaureate program (Scovanner, 1979). Additionally, attitudes toward the training program and teaching have been found to be more favorable among student teachers/interns who have experienced extended field placements, primarily in programs associated with teacher education centers (Adkins, 1980; Bicknell, Bruce, Jones, Hull, Petrie, Rector, & Wheeler, 1974; Caldwell, 1980; Evans, 1974).

While the above research suggests the extended field experience may hold merit, there is nothing definitive in current research to show amplified outcome differences between the short-term student teaching model and the more costly and sophisticated intern model. An exception is the Resident Teacher Program (RTP) at the University of Oregon. The program recently won a national award for the most outstanding educational program for 1982. The uniqueness of this internship model lies in its flexibility and cost-benefit efficiency, together with a consortium council, on-site supervision and strong curriculum support provided by a school district person (not a principal) and a well-integrated peer-support system. Four RTP models have been devised to (a) meet variations in joint governance with co-operating

school districts, (b) provide a balance of training components needed by beginning teachers, and (c) allow school districts to suggest areas of focus commensurate with their needs.

The effectiveness of the program has been validated by research (Kehl, 1981). Findings indicate (a) that RTP graduates were perceived to be more competent than teachers who did not experience a year-long induction program during their first year of teaching and (b) that program goals were rated achieved by participants.

While there has been little research linking extended field experience in the form of an internship to the question of transfer of training, there is sufficient evidence to indicate potential of the internship as a technique of induction and to warrant further consideration of extended field experience as an alternative to the traditional student teaching model.

An over-riding concept from the literature suggests the absolute necessity for linking preservice and inservice (Bush, 1977; Leiter & Cooper, 1978; McDonald, 1978; Shanker, 1979; Tom, 1979; Vaughn, 1979). The in-depth and comprehensive study of internship programs of McDonald and Elias (1980) raises three questions for further examination:

(a) What is the precise nature and character of the problems teachers experience during the induction period and how extensive and severe are they?

(b) What factors influence the generation and solution of these problems?

(c) What kinds of training, assistance programs, or experiences have powerful effects to prevent, alleviate, or facilitate the solution

of these problems?

METHODOLOGICAL CONSIDERATIONS OF THE LITERATURE

An overview of the studies outlined in this paper appears to raise repeatedly the issue of methodological considerations. The major considerations are the intervening contextual factors or the environmental-ecological variables. Gall (1977) outlined seven contextual variables and three methodological requirements that research must consider when investigating the effectiveness of the transfer of target skills to the classroom. They are teachers, students, teaching methods, materials, objectives, evaluation, and setting, together with the methodological considerations of ecological validity (being truly representative of a classroom), fidelity of treatment, and experimental control of the contextual variables. According to MacLeod (1981) this advice either has not been heeded or is virtually impossible to control adequately with process-product models that are used to investigate the real classroom. He questioned the validity of the research into microteaching, and stated that methodological considerations are the prime causes for the inconclusive nature of the findings. They "suffer from all the difficulties of training studies and in addition from all the difficulties inherent in the process-product studies." Six major reasons for the indeterminate nature of the research findings regarding the transferability of teaching skills are outlined by Macleod. They range from poor controls on treatment groups, to a lack of adequate matching measures and trivial research questions which result in commonsense trivial findings; for example, "a trained group produces more of the trained behaviours . . . than does an untrained group."

Tikunoff and Ward (1978), in an article concerned with the reliability and validity of assessing skills and competencies in the classroom, quoted Smith (1978) to illustrate the complexity of the setting. Smith described the teaching/learning act as being "multi-method, multi-person, multi-situation and multi-variable" based. Tikunoff and Ward suggested greater specification of the variables to be considered than did Gall--for example, pupil ages, grades, class size, socio-economic status, reading levels, absenteeism, time of the day, time allocation, matching of pupils, and many more. One wonders where such a list might end.

When the contextual factors are combined with possible socialization effects, the possibilities for accurately measuring the relationship between the independent variable (training model focus) and the dependent variables (measures of target skill performance) are problematic, to say the least. How can one assume that the single independent variable, the training model, is responsible for any particular portion of the teacher's observed classroom behavior when so many other uncontrolled, indeed uncontrollable, factors are able to affect that action?

SUMMARY OF FINDINGS

Based upon a review of the literature outlined in this paper it appears the transfer of training in the student teaching experience is affected by many factors. We feel the following statements generally represent our findings:

1. Microteaching seems to have undergone a developmental phase, which could be seen as the utilization of peer teaching. While many training institutions continue to utilize microteaching, the "cost-benefit" considerations may have forced discontinuance or

adaptation. An additional reason for the discontinued use of the approach may be the rather poor transfer of skills inherent to this type of pre-service training, despite its success with acquisition of skills in the laboratory.

2. The basic use of simulation appears to be primarily within those institutions offering "skill training." There is a definite lack of research being done on simulation as a methodology for training pre-service liberal arts teachers, despite its proven high level of transfer across settings.
3. CBTE has demonstrated the capability of training for, and achieving transfer of, specific techniques. Questions remain regarding stability of training effect and value of discreet skills in satisfying multi-dimensional classroom demands.
4. Although educational researchers have accumulated a substantial number of studies indicating a strong relationship between the student teacher and the cooperating teacher, not all research supports this theory. It is important, however, to consider the possibility that the cooperating teacher may negate or override skills learned by the student teacher in teacher training institutions.
5. The tenuous position of the supervisor is illustrated in many research studies. Placed between the theoretical university base and the practical classroom environment, the supervisor may find it difficult to encourage a transfer of university learned skills and theory into the lesson activities prepared by the student teacher.

6. Faced with enculturation, the student teacher will attempt to acquiesce to the common practices within the classroom. Unless specific strategies learned in teacher training are approved, and in evidence at the school site, the student teacher probably will make no effort to introduce them.
7. The triad is a proven entity. The conflict that may arise from two-party coalitions within the triad may negate the implementation of skills learned in teacher training.
8. The interactive forces of classroom and school context are a neglected dimension in student teaching research. If some teaching skills only become usable after a student has mastered the ecology of the classroom, it is reasonable to assume the implementation of those strategies and skills will be deferred, or perhaps will be considered incongruous to the setting.
9. Factors of school environment undoubtedly mediate the transfer of training by providing the institutional context within which transfer is to occur. Factors of policy, procedure, population, curriculum, and expressed and implicit attitudes and values within both formal and informal systems create an array of powerful socializing forces.
10. The research into teacher characteristics and attitude sets indicates that there are "global qualities" readily recognizable, if rarely defined. These qualities identify potentially successful teachers and earmark a few people whose intrinsic abilities match the prerequisites for effective transfer of training.
11. Student teaching may be viewed as an inductive process through

which student teachers come to adopt those attitudes and values which they perceive to be held by those who represent success within the profession. These values often disagree with those inherent in training programs, creating an affective dissonance and compromising both motivation and opportunity to accomplish transfer.

12. While internship programs may provide a promising means for linking pre-service and inservice, research is not conclusive as to the outcome differences between the short-term (student teaching) and long-term (internship) models. On the other hand, some light is thrown on this by research on the Resident Teacher Program (RTP) of the University of Oregon which has shown that RTP graduates are perceived to be more competent than teachers who did not receive a year-long induction program during their first year of teaching.

CONCLUSIONS/RECOMMENDATIONS

The all-important "so what?" questions for teacher educators should be "Are the highly recommended skills and strategies of our programs actually being used in the field by our students or graduates?" and, if they are, "Do those skills or strategies, when they are used, improve teacher/pupil performance?" When one reviews the literature that focuses on these questions, in this case mainly the first, the complexity of the whole transfer of training issue is readily apparent. Hundreds of teacher education institutions charged with the responsibility of turning out the best highly skilled neophyte professionals possible continue to pursue programs that involve laboratory and field-based training. Many of the

elements of these approaches have little or no support from research regarding their transferability or field effectiveness. Perhaps it is not difficult to understand why.

The teaching-learning act in the real world of the public school classroom is a complex problem to investigate. To focus on just one common skill, such as questioning, has its complications. As Copeland (1981b) says, "How does one deal with the multidimensional, simultaneous and unpredictable behaviour or occurrences that will follow any change in teacher-learner behaviour?" (p. 7) In this instance he used the example of trainees attempting to implement higher cognitive level questioning skills, acquired in a microteaching laboratory, into a student teaching session. No training laboratory, he added, would be able to prepare a student with the skills and knowledge to deal with the whole new set of multidimensional, simultaneous, and unpredictable behaviors or occurrences that would follow each higher level question that was asked.

Research into occupational socialization suggests that teacher education institutions structure for formal and informal socialization influences by using combinations of college work and teaching practice and, therefore, build conflicting forces into their training programs. The opposing forces may negate much of the endeavor.

There are indications that training models involving a "theory, demonstration, practice, feedback, and in-the-classroom-coaching" sequence will produce a transfer of skills or complex strategies. The maximum level of impact, according to Showers (1981), will occur when the teacher has acquired both "horizontal and vertical transfer." Proficiency with a technique and ability to reproduce it on demand is considered to constitute

horizontal transfer. Achievement at the vertical level occurs when the learned strategy or technique is internalized by the teacher and is integrated into his/her repertoire of teaching strategies. That is, the teacher can automatically and appropriately apply the model to a particular situation to meet the learners' abilities, ages, the educational goals and content. It should not require conscious effort to the extent of interfering with the smooth function or daily business of the classroom. Showers refers to this concept as being "executive control."

It is important to remember that Joyce and Showers have focused on in-service teachers who have moved beyond the student teacher and beginning teacher concerns for survival techniques of classroom management. It may be that transfer occurs more readily in a situation where teachers are comfortably handling management demands and are willing to experiment with innovative techniques.

The Joyce and Showers investigation of transfer seems to gain support from the socio-anthropological studies, together with those concerned with a socialization focus. When significant others, such as teachers and supervisors, and environmental factors are included in the training mode, transfer results are promising. Where co-operating teachers have accepted and adopted the target skills the student teachers' use of them has been found to be strongly in evidence (Copeland, 1977; Kilgore, 1979). Copeland (1981b) and Doyle (1977b) further suggest that classroom pupils also need to be familiar with the target skills, or strategies, if the techniques are to remain in use over a prolonged period. The importance of the pupils' role in the transfer of training question is sadly neglected in the literature.

A descriptive-correlational-experimental loop (Rosenshine & Furst,

1973) seems to satisfy some of the methodological concerns highlighted by critics mentioned in this review. The initial phase, the descriptive studies, provides opportunity for the application of socio-anthropological research techniques, such as those advocated by Copeland (1981b) and Doyle (1977b), which will generate variables useful for correlation studies. The significant relationships isolated by correlational research will, in turn, provide opportunities for experimental research to seek cause and effect relationships. When this methodology is combined with promising experimental work of Joyce and Showers one may be optimistic about the progress that may result from studies that focus on the vital question of transfer.

Difficult questions, such as, If the student teacher actually implements the target skills recommended by the training institution, will those techniques improve teacher/pupil performance? and Can teacher education institutions and cooperating schools heed the research findings regarding student teaching practices and still accommodate a viable competency-based field experience program? remain intriguing challenges that require further investigation.

References

Acheson, K., & Gall, M. D. Techniques in the clinical supervision of teachers. New York: Longman, 1980.

Adkins, D. T. A study of the effects on educational students of a service team and consortium experience utilizing the preservice-inservice collaboration consortium model for curriculum and instructional development (Doctoral dissertation, Wayne State University, 1980). Dissertation Abstracts International, 1980, 41, 1543A. (University Microfilms No. 80-22803)

Allen, D. W., & Fortune, J. C. An analysis of microteaching: New procedure in teacher education. In Microteaching: A description. Stanford, CA: Stanford University, 1966.

Barrows, L. K. Power relationships in the student teaching triad. 1979. (ERIC Document Reproduction Service No. ED 173 335)

Barton, D. L. A comparison of moral judgment and student teacher effectiveness (Doctoral dissertation, University of Utah, 1979). Dissertation Abstracts International, 1979, 40, 1414A. (University Microfilms No. 79-20338)

Beck, M. The student teaching experience as perceived in the writing of student teachers (Doctoral dissertation, Rutgers University, 1974). Dissertation Abstracts International, 1974, 35, 3558A. (University Microfilms No. 74-27318)

Bell, C. G. Can the art of teaching be structured? Journal of Home Economics, 1970, 62, 34-39.

Belt, W. D. Micro teaching--Observed and critiqued by a group of trainees. 1967. (ERIC Document Reproduction Service No. ED 011 890)

Bennie, W. A. Campus supervision of student teaching--A closer look. Teachers College Journal, 1964, 131-133.

Bennie, W. A. The prologue of the past. Action in Teacher Education, 1978, 1, 3-7.

Berliner, D. Microteaching and the technical skills approach to teacher training. Stanford, 1969.

Bettencourt, E. M. Effects of training teachers in enthusiasm on student achievement and attitudes (Doctoral dissertation, University of Oregon, 1979). Dissertation Abstracts International, 1979, 40, 3237A. (University Microfilms No. 79-27226)

Bicknell, J. E., Bruce, C., Jones, L., Hull, R., Petrie, T., Rector, R., & Wheeler, D. Formative studies of the first year of the competency-based field center for teacher education at Hamburg, New York. Fredonia, NY: State University of New York, Teacher Education Research Center, 1974. (ERIC Document Reproduction Service No. ED 093 853)

Bidwell, B. (1962). In Van Maanen, J., & Schein, M. Toward a theory of organizational socialization. Research in Organizational Behaviour, 1979, 1.

Bishop, W. E. Characteristics of teachers judged successful by intellectually gifted high achieving high school students. In W. Barbe & J. Renzulli (Eds.), Psychology and the education of the gifted. New York: Irvington Publishers, Inc., 1981.

Blackmore, D. S. Integration of theory and practice in internship. In D. M. McGeogh (Ed.), Internships in teacher education (Forty-seventh yearbook). Washington, DC: Association for Student Teaching, 1968.

Blankenship, J. W., & Cunningham, C. Classification of elementary school student teachers' expressed needs. College Student Journal, 1979, 13, 374-378.

Blanton, L. H. Using realia in instruction. Agricultural Education Magazine, 1980, 52(3), 3-14.

Borg, W. R., Kallenbach, W., Morris, M., & Friebel, A. Videotape feedback and microteaching in a teacher training model. Journal of Experimental Model, 1969, 37, 9-16.

Borg, W. R., Kelley, M. L., Langer, P., & Gall, M. D. The mini-course: A microteaching approach to teacher education. CA: MacMillan Educational Service, 1972.

Boschee, F., Prescott, D. R., & Hein, D. D. Do cooperating teachers influence the educational philosophy of student teachers? Journal of Teacher Education, 1978, 29, 57-61.

Bowden, S. T. The effect of training preservice teachers in the use of the instrument for observing classroom science behavior on preservice teacher and pupil behavior (Doctoral dissertation, University of North Carolina, 1978). Dissertation Abstracts International, 1979, 40, 202A. (University Microfilms No. 79-14324)

Bowman, N. Student teacher supervision, practices and policies. Action in Teacher Education, 1978, 1, 62-65.

Bruner, J. The process of education. Cambridge, MA: Harvard University Press, 1961.

Bush, R. N. We know how to train teachers: Why not do so? Journal of Teacher Education, 1977, 28(6), 5-9.

Caffee, B. S. The effects of the student teaching experience on student teacher attitude and relationships between attitudes and teacher effectiveness (Doctoral dissertation, East Texas State University, 1979). Dissertation Abstracts International, 1979, 40, 2007A. (University Microfilms No. 79-18444)

Caldwell, B. The development of teacher effectiveness within a teacher center consortium. Action in Teacher Education, 1980, 2, 75-82.

Caldwell, R. M. The acquisition of specific teaching behaviors through a teacher center consortium and the effects of those behaviors on pupil perceptions of the learning environment. Dallas, TX: Dallas Independent School District, 1977. (ERIC Document Reproduction Service No. ED 139 741)

Callahan, R. The effects of student teaching and pupil evaluation on attitudes of student teachers (Doctoral dissertation, University of Oregon, 1976). Dissertation Abstracts International, 1977, 37, 5753A. (University Microfilms No. 77-04705)

Callahan, R. A study of teacher candidates' attitudes. College Student Journal, 1980, 14, 167-175.

Camp, N. C. A study of changes in self-concept and attitude toward teaching among preservice secondary school teachers during student teaching (Doctoral dissertation, North Carolina University, 1979). Dissertation Abstracts International, 1980, 41, 1026A. (University Microfilms No. 80-20477)

Campbell, L. P., & Williamson, J. A. Inner-city schools get more custodial teachers. Clearinghouse, 1978, 52, 140-141.

Cattell, R. B., & Eber, H. W. Handbook for the sixteen personality factor questionnaire (2nd ed.). Champaign, IL: The Institute for Personality and Ability Testing, 1962.

Clegg, A. A., Jr., et al. Does school organization make a difference in preparing teachers? Improving College and University Teaching, 1979, 27(3), 104-109.

Clifford, R. T., et al. Student evaluation of peer-group microteaching as preparation for student teaching. Modern Language Journal, 1977, 61, 229-236.

Cohen, M. W., Mirels, H. L., & Schwebel, A. I. Dimensions of elementary school student teacher concerns. Journal of Experimental Education, 1972, 41, 6-10.

Conant, J. The education of American teachers. New York: McGraw-Hill, 1963.

Coody, B. E., & Hinley, R. T. A validity study of selected EPPS subscales for determining need structure of dominating and submissive student teachers. Journal of Educational Research, 1967, 61, 59-61.

Copeland, W. D. Some factors related to student teacher classroom performance following microteaching training. American Education Research Journal, 1977, 14, 147-151.

Copeland, W. D. Processes mediating the relationship between cooperating teacher behavior and student teacher classroom performance. Journal of Educational Psychology, 1978, 70, 95-100.

Copeland, W. D. Student teacher and cooperating teacher: An ecological relationship. Theory into Practice, 1979, 18, 194-199.

Copeland, W. D. Training-learning behaviours and the demands of the classroom environment. Elementary School Journal, 1980, 80, 163-177.

Copeland, W. D. Affective disposition of teachers in training toward examples of supervisory behavior. Journal of Educational Research, 1981, 74, 37-42. (a)

Copeland, W. D. Clinical experiences in the education of teachers. Journal of Education for Training, 1981, 7, 1. (b)

Copeland, W. D., & Doyle, W. Laboratory skill training and student teacher classroom performance. Journal of Experimental Education, 1973, 42, 16-21.

Corbett, H. D., III. Using occupational socialization research to explain patterns of influence during student teaching. Journal of Teacher Education, 1980, 31, 11-13.

Coulter, F. Perceptions of classroom behaviors by supervisors and student teachers. The Practicum: Present and Future. Report on the National Conference on Teacher Education, Perth, West Australia, August 1975.

Council for Educational Development and Research. School improvement is possible now, really! Washington, DC: 1979.

Crane, C. Attitudes toward acceptance of self and others and adjustment to teaching. British Journal of Educational Psychology, 1974, 44, 31-36.

Cruikshank, D., & Broadbent, F. An investigation to determine effects of simulation training on student teacher behavior. Educational Technology, 1969, 9, 50-54.

Davis, O. L., & Smoot, B. R. Effects on the verbal teaching behaviors of beginning secondary teacher candidates' participation in a program of laboratory teaching: Laboratory observation schedule and record. Educational Leadership, 1970, 28, 165-169.

de Voss, G. G. The thrill of success--and the agony of failure--student teaching at its best and worst. 1980. (ERIC Document Reproduction Service No. ED 191 850)

Dickinson, W. R. A follow-up study of the attitudes of Central Michigan University graduates of the years 1973-1976 toward the undergraduate teacher education program in which they participated with implications for teacher education programs (Doctoral dissertation, Michigan State University, 1979). Dissertation Abstracts International, 1980, 40, 6235A. (University Microfilms No. 80-13724)

Dispoto, R. Affective changes associated with student teaching. College Student Journal, 1980, 14, 190-194.

Dodds, P. A peer assessment model for student teacher supervision. Research Quarterly, 1979, 50, 18-29.

Doyle, W. Learning the classroom environment: An ecological analysis. Journal of Teacher Education, 1977, 28, 51-55. (a)

Doyle, W. Paradigms for research on teacher effectiveness. In Schulman (Ed.), Review of research in education. Itasca, IL: Peacock, 1977. (b)

Doyle, W., & Ponder, G. A. Classroom ecology: Some concerns about a neglected dimension of research on training. Journal of Contemporary Education, 1975, 46, 183-188.

Dunham, C. Field attitudes of student teachers, college supervisors, and school teachers toward youth. Unpublished doctoral dissertation, Indiana University, 1958. (ERIC Document Reproduction Service No. ED 198 071)

Easterly, J. L. Mutual-choice placement--A humanistic approach to student teaching assignments. 1977. (ERIC Document Reproduction Service No. ED 194 454)

Edgar, D. E. Affective relationships in teacher supervision. Journal of Teacher Education, 1972, 23, 169-171.

Edwards, C. H. Changing teacher behavior through self instruction and supervised micro teaching in a competency based program. The Journal of Educational Research, 1975, 68, 219-222.

Elliott, P. G. (Ed.). Field experiences in preservice teacher education (Bibliographies in Educational Topics No. 9). ERIC Clearinghouse on Teacher Education, 1978.

Ellsworth, G., & Coulter, F. Relationships between professional self perception and commitment to teaching. Australian Journal of Education, 1978, 22, 25-37.

Erickson, G., et al. Dealing with classroom distractions. Elementary School Journal, 1980, 81, 40-45.

Evans, M. L. Toward assessing the effectiveness of a teacher education center. Paper presented at the annual meeting of the American Educational Research Association, April 1974. (ERIC Document Reproduction Service No. ED 098 280)

Fages, S. F. The effect of videotaped feedback and dissonance on the change in four dimensions of self-perception of student teachers (Doctoral dissertation, University of Miami, 1978). Dissertation Abstracts International, 1979, 39, 4878A.

Feshbach, N. D., & Campbell, M. Teacher stress and disciplinary practices in schools: A preliminary report. 1978. (ERIC Document Reproduction Service No. ED 162 228)

Fisher, A. Effects of feedback instruction during student teaching on performance and attitudes of prospective black elementary school teachers. The Negro Educational Review, 1980, 31, 83-88.

Fisher, C. W., & Berliner, D. C. Clinical inquiry in research on classroom teaching and learning. Journal of Teacher Education, 1979, 30(6), 42-49.

Ford, S. F. S. The effects of self-awareness training on creativity and self-actualization in student teachers (Doctoral dissertation, University of Houston, 1979). Dissertation Abstracts International, 1980, 40, 6129A. (University Microfilms No. 80-12718)

France, E. S. A two-year assessment of selected performance competencies in the South Carolina State College elementary teacher education program (Doctoral dissertation, University of South Carolina, 1979). Dissertation Abstracts International, 1980, 40, 3966A-3967A. (University Microfilms No. 80-02249)

Freeland, K. Assessing student teaching. The Teacher Educator, 1979, 15, 11-16.

French, E. J., & Galloway, C. Classroom interaction. Educational Leadership, 1970, 27, 548-552.

Fuchs, E. Teachers talk. Garden City, NY: Doubleday and Company, 1969.

Fuller, F. F. Concerns of teachers: A developmental conceptualization. American Educational Research Journal, 1969, 6, 207-226.

Funk, H. D., & Musgrave, R. Evaluation of cooperating teachers. School and Community, 1974, 60, 24-25.

Gage, N. L. The scientific basis of the art of teaching. New York: Teachers College Press, Teachers College, Columbia University, 1978.

Gall, M. D. The importance of context variables in research on teaching skills. Journal of Teacher Education, 1977, 28(3), 43-48.

Gallagher, P. R. The context in which student teaching occurs and its effect on student teacher performance (Doctoral dissertation, Oregon State University, 1979). Dissertation Abstracts International, 1979, 40, 2010A. (University Microfilms No. 79-22374)

Gallemore, S. L. The student teaching experience: Perceptions of student teachers, cooperating teachers, and university supervisors (Doctoral dissertation, University of North Carolina at Greensboro, 1979). Dissertation Abstracts International, 1979, 40, 1948A. (University Microfilms No. 79-22407)

Garrett, B. A. Pupil perceptions of selected Mississippi State University student teacher participants in a nonverbal communication training program as measured by the pupil observation survey (Doctoral dissertation, Mississippi State University, 1979). Dissertation Abstracts International, 1979, 40, 3239A. (University Microfilms No. 79-27086.

Garvey, R. Self-concept and success in student teaching. Journal of Teacher Education, 1970, 21, 357-361.

Gettone, V. G. Role conflict of student teachers. College Student Journal, 1980, 14, 92-99.

Gibson, A. M. A follow-up study of the elementary education graduates of Troy State University from 1975-1977 (Doctoral dissertation, Auburn University, 1979). Dissertation Abstracts International, 1979, 40, 3239A. (University Microfilms No. 79-27595)

Gillett, M. H. Effects of teacher enthusiasm on at-task behavior of students in elementary classes (Doctoral dissertation, University of Oregon, 1980). Dissertation Abstracts International, 1980, 41, 1919. (University Microfilms No. 80-24856)

Glassberg, S., & Sprinthall, N. Student teaching: A developmental approach. Journal of Teacher Education, 1980, 31, 31-38.

Goldsmith, R. C. A procedure to help preservice teachers in physical education enhance their control, awareness, and satisfaction (Doctoral dissertation, Columbia University Teachers College, 1979). Dissertation Abstracts International, 1979, 40, 2011A. (University Microfilms No. 79-23591)

Good, T. L., & Brophy, J. E. An empirical investigation: Changing teacher and student behavior. Journal of Educational Psychology, 1974, 66, 399-405.

Gough, H. G. Manual for the California psychological inventory (Rev. ed.). Palo Alto, CA: Consulting Psychologists Press, 1957.

Gough, H., Durflinger, G., & Hill, R. Predicting performance in student teaching from the California psychological inventory. Journal of Educational Psychology. 1968, 59, 119-127.

Haberman, M. The teaching behavior of successful interns. Journal of Teacher Education, 1975, 16, 215-220.

Hansford, B. C., & Copeland, W. D. Microteaching as a tool for training of teachers: Some current considerations. South Pacific Journal of Teacher Education, 1979, 3/4, 68-75.

Hatfield, A. B. An experimental study of the self-concept of student teachers. Journal of Educational Research, 1961, 55, 87-89.

Heddendof, R. Professionalism and personality types among student teachers. Journal of Teacher Education, 1971, 22, 310-313.

Hersh, R. What makes some schools and teachers more effective. Unpublished manuscript, University of Oregon, 1981.

Herzlich, R. [The evaluation of one aspect of micro-teaching in the formation of foreign language teachers.] CILA Bulletin, 1980, 30. (ERIC Document Reproduction Service No. ED 187 151)

Hill, D. R. A study of the effects of joint laboratory on the supervisory conference, the teacher-intern relationship and the intern's teaching practices (Doctoral dissertation, University of Oregon, 1977). Dissertation Abstracts International, 1978, 39, 238A. (University Microfilms No. 78-10198)

Hoy, W. K. Organizational socialization: The student teacher and pupil control ideology. Journal of Educational Research, 1967, 61, 53-55.

Hoy, W. K., & Rees, R. The bureaucratic socialization of student teachers. Journal of Teacher Education, 1977, 28, 23-25.

Huntley, S. V. A study of the effects of nonverbal behavior awareness training on the reception and performance of student teachers in elementary and secondary education (Doctoral dissertation, University of Toledo, 1978). Dissertation Abstracts International, 1979, 40, 82A. (University Microfilms No. 79-14845)

Iannacconi, L., & Button, H. W. Functions of student teaching. St. Louis: Washington University Press, 1964.

Jacobson, N. S. Problem solving and contingency contracting in the treatment of marital discord. Journal of Consulting and Clinical Psychology, 1977, 45, 92-100.

Jalbert, E. L. The effectiveness of training in the evaluation of classroom instruction as an aid to self-evaluation in student teaching. Journal of Educational Research, 1966, 60, 130-135.

Johnson, W. D., & Pancrazio, S. B. The effectiveness of three microteaching environments in preparing undergraduates for student teaching. Paper presented at the annual meeting of the American Educational Research Association, 1971. (ERIC Document Reproduction Service No. ED 051 098)

Joyce, B., & Showers, B. Improving inservice training. In B. Joyce, C. Brown, & L. Peck (Eds.), Flexibility in teaching. New York: Longman, 1981. (a)

Joyce, B., & Showers, B. Transfer of training: The contribution of coaching. Boston University Journal of Education, 1981. (b)

Joyce, B., Yarger, S., Howey, K., Harbeck, K., & Kerwin, T. Preservice teacher education (US Office of Education Contract OEC-0-74-9279). Palo Alto, CA: Lewin and Associates, Inc., 1977.

Kallenbach, W., & Gall, M. D. Microteaching versus conventional methods in training elementary teachers. Journal of Education Research, 1969, 63, 136-141.

Kaplan, L. An investigation of the role expectations in college supervisors of student teaching as viewed by student teachers, supervising teachers, and college supervisors (Doctoral dissertation, University of Rochester, 1967). Dissertation Abstracts International, 1967, 28, 517A.

Karani, F. A. A study of the application of interaction analysis to the training of preservice teachers in Kenya (Doctoral dissertation, University of Pittsburgh, 1979). Dissertation Abstracts International, 1980, 40, 5405A. (University Microfilms No. 80-04815)

Karmos, A., & Jacko, C. The role of significant others during the student teaching experience. Journal of Teacher Education, 1977, 28(5), 51-55.

Kehl, E. M. The effects of a first-year induction program on teacher competence. Unpublished doctoral dissertation, University of Oregon, 1981.

Kilgore, A. M. Pilot project shows definite link between pre-, in-service education. Journal of Teacher Education, 1979, 30, 10-12.

Krasno, R. M. Teachers' attitude: Their empirical relationship to rapport with students and survival in the profession. Stanford, CA: Stanford Center for Research and Development in Teaching, Stanford University, 1972. (ERIC Document Reproduction Service No. ED 067 388)

Kulm, G. The effects of practicum experience on the opinions of secondary mathematics teachers. Paper presented at the annual meeting of the American Educational Research Association, 1975. (ERIC Document Reproduction Service No. ED 111 691)

Leiter, M., & Cooper, M. How teacher unionists view in-service education. Teachers College Record, 1978, 80(1), 107-125.

Leonard, B. C., Gies, F. J., & Paden, J. S. The effect of selected media feedback upon the interactive behavior of student teachers. Journal of Educational Research, 1971, 64, 478-480.

Leslie, L. Matching student teachers and cooperating teachers: A fruitful effort? Journal of Teacher Education, 1971, 22, 303-309.

Lipke, B. Give your (student) teachers a break. Journal of Teacher Education, 1979, 30, 31-34.

Lipton, A., & Lesser, E. Teacher training at Stony Brook: A model for conflict. Journal of Teacher Education, 1978, 29(6), 57-60.

Loadman, W., & Mahan, J. M. A study of the relationships between the rankings of supervising teacher effectiveness and attitude toward education. Paper presented at the annual meeting of the American Educational Research Association, 1973.

Lock, C. R. Problems of secondary school student teachers. Teacher Educator, 1977, 13(1), 30-40.

Lorsch, N. Unpublished manuscript, University of California at Santa Barbara, 1981.

Lortie, D. School teacher. Chicago: University of Chicago Press, 1975.

Lowther, M. A. Successful and unsuccessful experiences of student teachers in secondary education. Contemporary Education, 1970, 41, 272-275.

Luke, M. D. Role conceptions, role conflict, and role stress of student teachers (Doctoral dissertation, University of Washington, 1979). Dissertation Abstracts International, 1979, 40, 3243A. (University Microfilms No. 79-27833)

MacDonald, J., & Zaret, E. Student teaching: Benefit or burden? Journal of Teacher Education, 1971, 22, 51-58.

Mackey, J. et al. The effectiveness of teacher education. Peabody Journal, 1977, 54, 231-238.

MacLeod, G. Experimental studies of the outcomes of microteaching. The South Pacific Journal of Teacher Education, 1981, 9(1), 31-41.

MacNaughton, R., Johns, F., & Rogers, J. Alternative models for revitalizing the school-university partnership. Action in Teacher Education, 1978, 1, 18-29.

Madike, F. U. Teacher classroom behaviors and student achievement. Journal of Educational Psychology, 1980, 72, 265-274.

Mahan, J., & Lacefield, W. Educational attitude changes during year-long student teaching. Journal of Experimental Education, 1978, 46, 4-15.

Matthews, C. The classroom verbal behavior of selected secondary school science teachers and their cooperating teachers (Doctoral dissertation, Cornell University, 1967). Dissertation Abstracts International, 1967, 28, 144A. (University Microfilms No. 67-01394)

McAleese, W., & Unwin, D. A selective survey of microteaching. Programmed Learning and Educational Technology, 1971, 8, 10-21.

McAllister, J. E. Glimpses of the past. In The outlook in student teaching (Association for Student Teaching 41st Yearbook). Dubuque: W. C. Brown, 1962.

McCanley, J. D. How much influence has a cooperating teacher? Journal of Teacher Education, 1960, 1, 79-83.

McDermott, R. P. Kids make sense: An ethnographic account of the interactional management of success and failure in one first-grade classroom. Unpublished doctoral dissertation, Stanford University, 1976.

McDonald, F. J. Evaluating preservice teachers' competence. Journal of Teacher Education, 1978, 29(2), 9-13.

McDonald, F. J. The teaching internship and teacher induction. Paper presented at the annual convention of the National Association of State Directors of Teacher Education and Certification, Boston, June 1980.

McDonald, F. J., & Allen, D. W. Training effects of feedback and modeling procedures on teacher performance (Technical Report No. 3). Stanford, CA: 1967.

McDonald, F. J., & Elias, P. A study of internship programs. Princeton: Educational Testing Service, 1980.

McIntyre, D. J., Buell, M. A., & Casey, J. Verbal behavior of student teachers and cooperating teachers. College Student Journal, 1979, 13, 240-244.

McIntyre, D. J., & Norris, W. R. The state of the art of preservice teacher education programs and supervision of field experiences. Action in Teacher Education, 1980, 3, 67-69.

McIntyre, D. J., Vickery, T. R., & Rusk, T. Differential observer effects on student teachers. 1980. (ERIC Document Reproduction Service No. ED 198 071)

McKnight, P. C. Microteaching: Development from 1968 to 1978. British Journal of Teacher Education, 1980, 6, 214-227.

Miele, S. D. The relationships of selective affective, cognitive, physiological, and psychomotor evaluative criteria to success in a physical education student teaching experience (Doctoral dissertation, Virginia Polytechnic Institute and State University, 1979). Dissertation Abstracts International, 1979, 40, 2607A. (University Microfilms No. 79-25376)

Moore, C. R. An analysis of attitudes and role perceptions of off-campus supervisors of student teaching toward their professional duties in eight major public teacher training institutions in Illinois. Unpublished doctoral dissertation, Southern Illinois University at Carbondale, 1975.

Moore, W. J., & Shaut, J. A. Stability of teaching behavior, responsiveness to training and teacher effectiveness. The Journal of Educational Research, 1976, 69, 360-363.

Morra, F., Jr. Autobiography as an enhancement of the relationship between student and cooperating teacher. 1977. (ERIC Document Reproduction Service No. ED 137 270)

Morris, J. E., & Morris, G. W. Stress in student teaching. Action in Teacher Education, 1980, 2, 57-61.

Morris, J. R. The effects of the university supervisor on the performance and adjustment of student teachers. Journal of Educational Research, 1974, 67, 358-362.

Nelson, J. A., Jr., & Hutchenson, D. E. A pilot study of the relationship of student teaching grades to FIRO compatibility among the student teachers, supervising teachers, and university supervisor. Journal of Teacher Education, 1970, 21(1), 44-46.

Nerenz, A. G. The influence of student teachers on their cooperating teachers' teaching strategies and beliefs about teaching and student teaching in foreign language classrooms (Doctoral dissertation, University of Wisconsin at Madison, 1979). Dissertation Abstracts International, 1980, 40, 4541A. (University Microfilms No. 80-01165)

Ng, W. The effectiveness of feedback in minicourse/microteaching in improving teaching skills: A review and proposal for further studies. 1977. (ERIC Document Reproduction Service No. ED 135 343)

Otto, E. D., Gasson, I. S. H., & Jordon, E. Perceived problems of beginning teachers. South Pacific Journal of Teacher Education, 1979, 7(1).

Page, F. M. The college supervisor's role as perceived by college supervisors, cooperating teachers, and student teachers. Mississippi State University, 1979.

Patterson, A. D., McGeoch, D. M., & Olsen, H. C. A brief history of the association of teacher educators. Washington, DC: Association of Teacher Educators, 1979.

Perreault, G., & Laktasic, S. Role congruence as a factor in attributed success of student teachers. Washington, DC: US Department of Health, Education, and Welfare, National Institute of Education, 1979. (ERIC Document Reproduction Service No. ED 180 964)

Peterson, G. L. Belief and judgment "policies" in student teaching: Institutional differences and the distribution of knowledge. 1977. (ERIC Document Reproduction Service No. ED 142 534)

Popkewitz, T. Ideology as a problem of teacher education. Paper presented at the annual meeting of the American Educational Research Association, New York, 1977.

Popkewitz, T. S., Tabachnick, & Zeichner, K. Dulling the senses: Research in teacher education. Journal of Teacher Education, 1979, 30(5), 52-60.

Prokop, M. Role conflict in student teaching. 1971. (ERIC Document Reproduction Service No. ED 080 498)

Purcell, T. D., & Seiferth, B. Experiences of student and attitudes toward college preparation. 1978. (ERIC Document Reproduction Service No. ED 155 140)

Reich, R. The effect of peer feedback on the use of specific praise in student-teaching (Doctoral dissertation, Pennsylvania State University, 1975). Dissertation Abstracts International, 1975, 37, 0925A.

Reinhartz, J. Improving student teacher instructional effectiveness. Action in Teacher Education, 1978, 1, 30-37.

Rodenburg, T. C. A study of the effect of student teaching upon philosophies of human nature (Doctoral dissertation, University of Kansas, 1979). Dissertation Abstracts International, 1980, 40, 4541A-4542A. (University Microfilms No. 80-02792)

Rosenshine, B. V., & Berliner, D. C. Academic engaged time. British Journal of Teacher Education, 1978, 4, 3-16.

Rosenshine, B. V., & Furst, N. F. The use of direct observation to study teaching. In R. M. W. Travers (Ed.), Second handbook of research on teaching. Chicago, IL: Rand McNally, 1973.

Ryan, K. (Ed.). Don't smile until Christmas: Accounts of the first year of teaching. Chicago: University of Chicago Press, 1970.

Ryan, K. Survival is not good enough: Overcoming the problems of beginning teachers. Chicago: University of Chicago Press, 1974. (ERIC Document Reproduction Service No. ED 090 200) (a)

Ryan, K. A. The use of feedback from students in the pre-service training of teachers. Paper presented at the annual meeting of the American Educational Research Association, Chicago, 1974. (b)

Ryan, K., Applegate, J., Flora, V., Johnston, J., Lasley, T., Mager, G., & Newman, K. My teacher education program? Well . . . First-year teachers reflect and react. Peabody Journal of Education, 1979, 56, 267-271.

Ryan, K. et al. Biting the apple: Accounts of first year teachers. New York: Longman, Inc., 1980.

Ryan, R. Teacher education: Part II (74th Yearbook of National Society for the Study of Education). Chicago: University of Chicago Press, 1975.

Sadker, M., & Sadker, D. Microteaching for affective skills. Elementary School Journal, 1975, 76, 90-99.

Sallam, S. S. A. The effects of inquiry instruction and training on the attitudes, creativity and teaching strategies of preservice elementary teachers (Doctoral dissertation, Purdue University, 1979). Dissertation Abstracts International, 1980, 41, 212A. (University Microfilms No. 80-15514)

Salzillo, F. E., Jr., & Van Fleet, A. A. Student teaching and teacher education: A sociological model for change. Journal of Teacher Education, 1977, 28, 27-31.

Sarason, S. B. The culture of the school and the problem of change. Boston: Allyn and Bacon, Inc., 1971.

Schalock, D. From research to practice: The dilemma for teacher education. Paper presented at meeting of the Oregon Education Research Association, October 1981.

Schein, M., & Bennis. (1965). In Van Maanen, J., & Schein, M. Toward a theory of organizational socialization. Research in Organizational Behaviour, 1979, 1.

Schueler, R., Gold, B., & Mitzel, H. Improvement of student teaching. New York: City University of New York, Hunter College, 1962.

Scovanner, C. H. The effects of three different secondary teacher education program schedules on the attitudes, supervisor ratings, and pupil ratings of student teachers (Doctoral dissertation, University of Cincinnati, 1979). Dissertation Abstracts International, 1980, 40, 6239A. (University Microfilms No. 80-12246)

Seperson, M. A., & Joyce, B. R. Teaching styles of student teachers as related to those of their cooperating teachers. Education Leadership Research Supplement, 1973, 31, 146-151.

Sevigny, M. J. Triangulated inquiry--A methodology for the analysis of classroom interaction. In Green & Wallat (Eds.), Ethnography and language. Ablex Publishing Company, 1981.

Shanker, A. Inservice "top of the list". Syracuse, NY: National Council of States on Inservice Education, 1979.

Showers, B. Transfer of training. Paper presented at University of Oregon Doctoral Seminar, Eugene, October 1981.

Sinclair, K., & Nicoll, V. Sources and experience of anxiety in practice teaching. The South Pacific Journal of Teacher Education, 1981, 9(1).

Sinclair, W. Field-based teacher education and K-12 personnel responsibilities in teacher education: A review. National Institute of Education (DHEW), 1975. (ERIC Document Reproduction Service No. ED 102 097)

Smith, R. G. A study of societal factors influencing teacher education and student teaching evaluation in Michigan 1956-1977 (Doctoral dissertation, Michigan State University, 1978). Dissertation Abstracts International, 1979, 40, 807A. (University Microfilms No. 79-17792)

Smith, F., & Adams, S. Changes in self-concept during the student teaching experience. Bureau of Educational Material and Research, Louisiana State University, 1972. (ERIC Document Reproduction Service No. ED 074 055)

Smith, S. D., & Smith, W. D. Teaching the poor: Its effect on student teacher self-concept. Journal of Teacher Education, 1979, 30, 45-50.

Southall, C., & King, D. F. Critical incidents in student teaching. The Teacher Educator, 1979, 15(2), 34-36.

Spruce, S. E. A study of attitude changes of elementary education student teachers during the student teaching experience (Doctoral dissertation, University of Illinois at Urbana-Champaign, 1979). Dissertation Abstracts International, 1980, 40, 4542A-4543A. (University Microfilms No. 80-04280)

Stahl, P. S. The development and validation of an introductory inservice training model in supervision for cooperating teachers (Doctoral dissertation, Boston University School of Education, 1979). Dissertation Abstracts International, 1979, 40, 2609A-2610A. (University Microfilms No. 79-23898)

Steinbach, A., & Butts, D. P. A comparative study of the effects of practice with elementary children or with peers in the science methods course. Journal of Research in Science Teaching, 1969, 6, 316-321.

Sturm, D. W. F. The relationship of student teachers' bureaucratic orientation to verbal classroom behavior. College Student Journal, 1979, 13, 398-406.

Sullivan, W. D. A study of the professional attitudes, self-concept, and teaching competencies of student teachers in performance-based and traditional teaching training programs (Doctoral dissertation, University of Pittsburgh, 1979). Dissertation Abstracts International, 1979, 40, 1632A. (University Microfilms No. 79-17443)

Sundgren, W., & Schmidt, B. Does practice teaching change attitudes toward teaching? Journal of Educational Research, 1956, 7, 673-680.

Swann, M. H. An experiment in field-based elementary teacher education. Shepherdstown, WV: Shepherd College, 1975. (ERIC Document Reproduction Service No. ED 120 189)

Taba, H. Curriculum development: Theory and practice. New York: Harcourt Brace, 1962.

Tabachnick, R. Intern-teacher roles: Illusions, disillusions and reality. Journal of Education, 1980, 162, 122-137.

Tabachnick, B. R., Popkewitz, T., & Zeichner, K. Teacher education and the professional perspectives of student teachers. Interchange, 1980, 10, 12-29.

Taylor, J. C. Path analysis applied to a study of the effectiveness of teacher education. Paper presented at Second National Conference on the Practicum in Teacher Education, Armidale, 1981.

Taylor, J. K., & Dale, I. R. A survey of teachers in their first year of service. School of Education, University of Bristol, 1971.

Templin, T. J. Occupational socialization and the physical education student teacher. Research Quarterly, 1979, 50, 482-493.

Thies-Sprinthall, L. Supervision: An educative of mis-educative process. Journal of Teacher Education, 1980, 31(4), 17-20.

Tikunoff, W. J., & Ward, B. A. Insuring reliability and validity in competency assessment. Journal of Teacher Education, 1978, 29(2), 33-37.

Tittle, C. K. Student teaching: Attitude and research bases for change in school and university. Metuchen, NJ: Scarecrow Press, Inc., 1974.

Tom, A. Pre-service teacher evaluation: From prophecy to analysis. California Journal of Teacher Education, 1979, 6(4), 4-22.

Turney, D. E. Microteaching. Trenton, NJ: Addison-Wesley, 1973.

Uhia, A. E. Role socialization, culture shock, and the student teacher (Doctoral dissertation, Rutgers University, 1979). Dissertation Abstracts International, 1980, 40, 3971A-3972A. (University Microfilms No. 80-00885)

Van Maanen, J., & Schein, E. H. Toward a theory of organizational socialization. In Research in Organizational Behaviour (Vol. 1). 1979.

Vaughn, J. Government investments in research and development on in-service: NIE's role. Journal of Teacher Education, 1979, 30, 33-35.

Wagner, A. C. Changing teacher behavior: A comparison of microteaching and cognitive discrimination training. Journal of Educational Psychology, 1973, 64, 299-305.

Walker, H., & Hersh, R. Great expectations making schools effective for all students. Paper presented at the Conference on Public Policy and the Special Education Task of the 1980's, Racine, WI, September 1981.

Ward, V. P. An attempt to reduce sex-role stereotyping in a laboratory pre-school through self-evaluation by student teachers (Doctoral dissertation, University of Connecticut, 1979). Dissertation Abstracts International, 1980, 40, 4397A. (University Microfilms No. 80-03746)

Warner, D. Transfer of teaching skills from the microteaching laboratory to the classroom. The South Pacific Journal of Teacher Education, 1981, 9.

Weinstock, H., & Peccolo, C. Do student teachers' ideas and attitudes survive practice teaching? Elementary School Journal, 1970, 70, 210-218.

Wragg, E. C. The influence of feedback on teachers' performance. Educational Research, 1971, 13, 218-221.

Yates, D. S. Student teachers' humanistic behavior: The effects of feedback on the likelihood of behavior change (Doctoral dissertation, Rutgers University, 1978). Dissertation Abstracts International, 1979, 40, 98A. (University Microfilms No. 79-14140)

Yee, A. H. The student-teaching triad: The relationship of attitudes among student teachers, college supervisors and cooperative teachers (Research Report to the USOE, University of Texas, Austin). 1967.

Yee, A. Do cooperating teachers influence the attitudes of student teachers? Journal of Educational Psychology, 1969, 60, 327-332.

Young, J. Authoritarianism in elementary student teachers and their supervising teachers. Journal of Teacher Education, 1971, 22, 70-71.

Zeichner, K. M. Myths and realities: Field-based experiences in preservice teacher education. Journal of Teacher Education, 1980, 31, 45-55.

Zevin, J. In the cooperating teacher image: Convergence of social studies student teachers' behavior patterns with cooperating teachers' behavior patterns. Paper presented at the annual meeting of the American Educational Research Association, 1974. (ERIC Document Reproduction Service No. ED 084 781)

Zimpher, N. L., de Voss, G. G., & Nott, D. L. A closer look at university student teacher supervision. Journal of Teacher Education, 1980, 31, 11-15.